

Replace paragraph on page 70, lines 14-29, with the following paragraph:

Menus supporting interactive design and selection of user preference data are shown in Figures 21E and 21F. A User-Interface to support interactive determination of black utilization is depicted in Figure 21E. It may be invoked from either Define or Apply menus. At the top left 270 is shown a panel of colorant specifications which are to be considered neutral in color. Users may redefine entries in the panel by clicking and keying or by modifying curves in the graph below 272 provided the graph is toggled to neutral definition rather than GCR. In the neutral definition mode the user may move points on any of the colorant functions; the points are splined together and changes in the graph are reciprocal with changes in the panel. A "return to default" switch 274 provides an easy way to get out of trouble. At the upper right 276, 278, variable readout switches enable definition of maximum colorant coverage and maximum black. At the bottom right 280, "Customize Tonal Transfer" opens the door to user modification of one or more of the 1-dimensional output postconditioning LUTs which are part of the color to colorant transformation. The application warns sternly that the specification of transfer curves which did not prevail during calibration will void the calibration; however, there are situations in which knowledgeable users can make effective use of the flexibility afforded by this function.

In the Claims:

Please cancel Claims 1-54.

Please add Claims 55-79 as follows:

55. A user interface for controlling color reproduction at multiple sites wherein each of said sites has at least one color input or output device and said user interface is operable at a computer comprising:
means for enabling a user to select a plurality of sites and to connect said plurality of sites; and
means for enabling the production of information for transforming input color image data into output color image data for each of the color input or output devices at each of said plurality of sites such that colors produced by the color devices appear

substantially the same within colors attainable by each of the devices, wherein said transforming means comprises means for establishing a relationship relating the color gamuts of said different color devices to each other.

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Sub B17*

56. The user interface according to Claim 55 wherein said means for enabling a user to select a plurality of sites and to connect said plurality of sites connects said sites in a network using network interfacing means.

AB

57. The user interface according to Claim 55 wherein said user interface is implemented on the computer using object oriented components.

58. The user interface according to Claim 57 wherein said means for enabling a user to select a plurality of sites represents a first means, said means for enabling production of information represents a second means, and said object oriented components comprise:

an abstract menu object comprising:

a command name object;

means for selecting the abstract menu object; and

a submenu command object derived from the abstract menu object, and comprising means for executing the submenu command object;

 a menu command object derived from the abstract menu object comprising:

 a plurality of the submenu command objects;

 means for selecting one of the submenu command objects; and

 a menu bar object derived from the abstract menu object comprising a plurality of the menu command objects, and a select menu for selecting one of the menu command objects; and

 a first action command object derived from the submenu command object comprising:

 means for selecting said action command object; and

*AB
cont'd*

~~means for carrying out said first action command object for operating said second means.~~

*A16
cont'd*

59. The user interface according to Claim 57 wherein said means for enabling a user to select a plurality of sites represents a first means, said means for enabling production of information represents a second means, and said object oriented components comprise:

an abstract menu object comprising:

a command name object;

means for selecting the abstract menu object; and

a submenu command object derived from the abstract menu object, and comprising means for executing the submenu command object;

a menu command object derived from the abstract menu object

comprising:

a plurality of the submenu command objects;

means for selecting one of the submenu command objects; and

a menu bar object derived from the abstract menu object comprising a plurality of the menu command objects, and a select menu for selecting one of the menu command objects; and

a first action command object derived from the submenu command object comprising:

means for selecting said action command object; and

means for carrying out said first action command object for operating said first means.

*A16
cont'd*

60. The user interface according to Claim 55 wherein said means for enabling a user to select and connect said sites further comprises means for establishing said connection between said multiple sites for data communication through a shared file structure having one or more components capable of being shared by said site.

A16
cont'd

61. The user interface according to Claim 55 further comprises means for displaying the topology of the connected sites to the user as linked nodes.

62. The user interface according to Claim 55 further comprising:
means for defining user preferences for color reproduction by at least one of the color devices.

63. The user interface according to Claim 62 further comprising means for enabling the user to select preferences of neutral color definition, %UCR, GCR, and maximum black.

64. The user interface according to Claim 55 further comprising:
means for displaying characteristics of said defined color transformation at one or more sites.

65. The user interface according to Claim 64 wherein said characteristics comprise at least the gamut of the color transformation of one or more color devices.

66. The user interface according to Claim 55 further comprising:
means for comparing characteristics of said defined color transformation at one or more sites for two or more of said color devices.

67. The user interface according to Claim 66 wherein said characteristics comprise at least the gamut of the color transformation of one or more color devices.

68. The user interface according to Claim 55 further comprising:
means for annotating images produced by at least one of said color devices.

69. The user interface according to Claim 55 wherein said means for enabling production of transformation information is capable of operating automatically without user assistance.

A16
cont'd

A 16 cont'd
70. The user interface according to Claim 56 wherein said network represents one of a Wide Area Network (WAN), Internet, telecommunications network or LAN.

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71. The user interface according to Claim 55 wherein at least two of said sites are remote from each other.

Sub B17 72. A user interface for controlling color reproduction at multiple sites wherein each of said sites has at least one color input or output device and said user interface is operable at a computer comprising:

means for enabling a user to select a plurality of sites and to connect said plurality of sites; and

means for enabling the production of information for transforming input color image data into output color image data for each of the color input or output devices at each of said plurality of sites such that colors produced by the color devices appear substantially the same within colors attainable by each of the devices.

73. The user interface according to Claim 72 wherein said transforming means comprises means for establishing a relationship relating the color gamuts of said different color devices to each other.

74. The user interface according to Claim 72 wherein said means for enabling a user to select a plurality of sites and to connect said plurality of sites connects said sites in a network using network interfacing means.

A 16 cont'd
75. A user interface for controlling color reproduction at one or more sites having color reproduction devices which said user interface is operable at a computer adapted for communication between a network of said sites and comprises means for enabling a user to select at least one site and to communicate information with said site, in which said information enables the simulation of color reproduction by at least one color reproduction device of another color reproduction device.

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76. A user interface, operable at a computer, for controlling color reproduction of an image at one or more sites comprising:

means for selecting one of different gamut operations upon said image, wherein color data of the image is compressible or expandable according to said selected gamut operation and one of said color data or information defining the gamut operation is capable of being communicated between the sites.

77. An interface of an image reproduction software application comprising:
means for processing digital color image data captured by a camera;
means for interpreting said image data with respect to information on the relationships between color gamuts of said camera and the color coordinate system of said image data; and

means for transforming said image data for reproduction on a color rendering device to improve the match between the color gamuts of said camera and color gamuts of said color rendering device.

78. A method for associating different image rendering devices with each other to define the color transformation of digital images between two or more rendering devices, comprising the steps of:

producing a matrix relating different ones of said rendering devices to each other in which rendering devices having similar color rendering characteristics are grouped in a class;

generating an object defining each said class; and
sharing color transformation information between one or more rendering devices of each said class by inheritance.

79. A method for detecting color errors in a reproduction representing a source digital image produced by a rendering device in which said source digital image has pixels in one or more color channels, said method comprising the steps of:

capturing a digital image of said reproduction in which said digital image is represented by pixels in different color channels;

*AI6
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